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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,924	07/10/2001	Rainer Hintsche	015200-066	8712

7590 05/06/2003  
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7  
EXAMINER

FORTUNA, ANA M

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/900,924

Applicant

Hintche

Examiner

Ana Fortuna

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Feb 19, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above, claim(s) 14-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8, and 10 is/are rejected.
- 7) ☒ Claim(s) 4, 7, 9, and 11-13 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. 09/214,493.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other:

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### DETAILED ACTION

2. Claim 6 recites the limitation "perforations" in line 2. There is insufficient antecedent basis for this limitation in the claim. The claim should read "wherein the perforated membrane has perforations...."

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-8, 10, are rejected under 35 U.S.C. 102(b) as being anticipated by WO 91/04785 ('785). Regarding claim 1 reference '785 discloses the separation device including the substrate having more than one through-opening, a porous perforated membrane film, an a semipermeable layer adhered to the membrane film (elements 11, 10, 20, Fig. 2). The support is disclosed as perforated, and made form a mesh or web made of fibers or filaments having penetrating holes (column 3, lines 29-34). The perforated membrane is disclosed as an anodic film grown on the substrate 11, which generally made of aluminum or an anodizable alloy , and contains pores or perforations (12) (page 4, last paragraph, pages 5, and page 6, liens 1-20). Regarding the semipermeable layer in the membrane of claim 1, layer 20, made or plastic (or polymeric material) and has perforations with a ratio or the size of the perforations to the thickness that allow the device to use in separation applications, and the perforations or pore of 0.1 micron for thin membranes (page 6, lines 21-35). Therefore, the layer 20 can be considered a

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polymeric microfiltration membrane. Reference '785 further discloses adhesion of the support (20) or membrane to the anodic film or perforated membrane (10) (page 9, lines 8-36). As to claims 2, 3, 5, the membrane and support made from different materials is disclosed in reference '785 (page 6, lines 21-35), e.g. metal substrate, (page 2, last paragraph through page 3, first paragraph, page 5, lines 2-23, and page 8, lines 26-36), the thickness of the membrane (anodic film 10) is disclosed (page 7, lines 4-10). Regarding claim 3, the membrane (20) as polymeric is disclosed (page 6, paragraph 3). As to claims 8-10, the thickness of the membrane and the membrane as polymer layer and the pore size is disclosed in reference '785 (page 6, lines 3-35, page 7, lines 4-9). The separation or membrane device is not clearly disclosed as sensor device, however, separation membrane device is disclosed. The membrane is also disclosed as having the support or unsupported. It would have been obvious to one skilled in the art at the time the invention was made to consider the device including all the elements as illustrated in Fig.3, e.g. for its use as electrodes, as suggested in '785 (column 10, lines 5-10).

5. Claims 54, 6-7, 9, 11, 12, 13 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. The separating element including the metallic film applied to one or both sides of the membrane is not disclosed; the silicon membrane of claim 6-7, the structure of claims 11-13, or the polymeric materials of claim 4 are not disclosed or suggested by the prior art of record.

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6. Applicant elected the group including claims 1-13 and 23, on paper no.6, filed on 2/19/03.

Claims 1-13 are considered. Claim 23 is now amended as depending on the process of making, which correspond to group II, which has not been examined, and which restriction is maintained, for reasons of record.

7. An inquiry concerning this communication or earlier communications from the examiner should be directed to Ana Fortuna whose telephone number is (703) 308-3857. The examiner can normally be reached on Monday-Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for regular responses, and (703)872-9311 for after finals.

Ana Fortuna

May 5, 2003



**ANA FORTUNA**  
**PRIMARY EXAMINER**